97/13152) in view of Kessler et al. and Burbaea et al.

Applicants respectfully traverse this rejection. The references of record do not teach or suggest applicants inventive subject matter as a whole as recited in the claims. The Examiner has failed to establish a *prima facie* case of obviousness against the presently rejected claims.

To establish a *prima facie* case of obviousness, the PTO must satisfy three requirements. First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Second, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *Amgen Inc. v. Chugai Pharm. Co.*, 18 U.S.P.Q.2d 1016, 1023 (Fed. Cir. 1991). Lastly, the prior art reference must teach or suggest all the limitations of the claims. *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

Applicants thank the Examiner for the telephonic Interview conducted on January 28, 2003. As discussed during the interview, applicants respectfully assert that the references cited by the Examiner do not teach each and every element of the presently pending claims.

In particular, Shinitzky et al. relates to assays for the diagnosis of Alzheimer's type dementia. The disclosed assays rely on obtaining a blood sample from an individual, determining the

level of a platelet associated antibody against a 75 kD platelet-protein in said sample, and comparing that level to a control sample. A level higher than that of the control sample indicates that the individual has a high likelihood of having Alzheimer's type dementia.

In contrast, the presently pending claims relate solely to diagnostic methods for determining schizophrenia in a subject comprising obtaining a preparation comprising platelet derived proteins, injecting said proteins into a subject, and examining the subject for the occurrence of delayed type hypersensitivity reaction at the site of the injection. Neither this specific assay, nor the use of any assay for determining schizophrenia, is disclosed by the Shinitzky et al. reference.

In fact, the data present in the instant specification demonstrates that while the presently claimed assay is effective for determining schizophrenia, it is not effective for determining Alzheimer's type dementia as discussed with the Examiner during the telephonic interview. Pages 10-11 and Table 1 of the instant specification shows that tests were conducted on 41 schizophrenic patients and 21 demented patients using the presently claimed assay. The results of this test show that 38 out of the 41 schizophrenic patients tested exhibited a DTH reaction, while none of the 21 demented patients tested exhibited a DTH reaction. This data proves that the presently claimed assay is able to determine schizophrenia but not Alzheimer's type dementia. The Shinitzky et al. reference, then, is related to a completely different assay for a completely different use than the presently claimed invention.

The Kessler et al. reference does not remedy the deficiencies of the Shinitzky et al. reference. In particular, Kessler et al. state that the numbers of platelet dense granules and platelet cell size in schizophrenic patients increased compared to age-matched healthy controls. In contrast, in patients with Alzheimer's type dementia, the number of platelet dense granules decreases compared to healthy persons. This further teaches away from the combination alleged by the Examiner since a test for determining Alzheimer's type dementia, such as that disclosed by the Shinitzky et al. reference, is not equivalent and can not be compared to a test for determining schizophrenia, such as that encompassed by the presently pending claims. Accordingly, a person of ordinary skill in the art would have had no motivation to combine the cited references to arrive at the presently claimed invention.

Further, Kessler et al. merely teach measuring the number of platelet dense granules and platelet cell size to determine whether a patient is schizophrenic. This test bears absolutely no relation to the presently claimed assay using a DTH reaction to determine schizophrenia in a patient.

The Burbaea et al. reference does not remedy these deficiencies. The Burbaea et al. reference relates to the body sensitization of schizophrenic patients to neurospecific proteins S-100 and 10-40-4. The reference found that there were statistically significant differences in manifestations of delayed type hypersensitivity reaction to these proteins in schizophrenic patients vs. normal subjects. However, Burbaea et al. is concerned with measuring the sensitivity of patients to neurospecific

proteins S-100 and 10-40-4 to determine whether the patients are schizophrenic. Accordingly, this reference does not disclose determining schizophrenia in a patient by injecting platelets into the patient and determining whether there is a DTH reaction at the site of the injection, as required by the presently pending claims. As discussed with the Examiner during the telephonic interview, Burbaea et al. relates to proteins different than those used according to the presently pending claims. Accordingly, each and every element of the presently claimed invention is not disclosed by at least one of the cited references as required by *In re Wilson*. The presently claimed invention, therefore, is unobvious over Shinitzky et al. in view of Kessler et al. and Burbaea et al.

Accordingly, applicants respectfully request the Examiner to reconsider and withdraw the rejection of pending claims 6-13.

CONCLUSION

Claims 6-13 are currently pending in the present application. Applicants respectfully request the Examiner to reconsider and withdraw the outstanding rejections and allow all pending claims herein.

Respectfully submitted,

NATH & ASSOCIATES PLLC

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NATH & ASSOCIATES PLLC
1030 Fifteenth Street, N.W.
Sixth Floor
Washington, D.C. 20005-1503
Tel: (202) 775-8383
Fax: (202) 775-8396
GMN:TLJ:JBG:\noa.doc

Gary M. Nath
Reg. No. 26,965
Joshua B. Goldberg
Reg. No. 44,126
Customer No. 20529